

WHAT IS CLAIMED IS:

1. A rubber composition containing carbon nanotubes or graphitic nanofibers (GNF) as reinforcement.

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2. A rubber composition according to Claim 1, characterized in that the rubber is selected from the group consisting of natural rubber, synthetic rubbers based on diene polymers or copolymers (e.g., polybutadiene, styrene-butadiene rubber, polyisoprene rubber, etc.), nitrile rubbers, silicone rubbers, neoprene rubbers, butyl rubbers, Thiokol (polyalkylene sulfide), urethane rubbers (polyesters and polyethers), ethylene-propylene rubbers, epichlorohydrin rubbers, epichlorohydrin-ethylene oxide rubbers, chlorosulfonated polyethylene rubber (Hypalon), polyacrylate rubbers, fluorine rubbers, and mixtures thereof.

15 3. A rubber composition according to Claim 1, characterized in that the carbon nanotubes or graphitic nanofibers (GNF) are single wall carbon nanotubes, multi-wall carbon nanotubes, graphitic nano-fiber (GNF), or mixtures thereof.

4. A rubber composition according to Claim 3, characterized in that the carbon
20 nanotubes or graphitic nano-fibers are those representing straight, helical or branched shapes, or mixed shapes, or a mixture of those with different shapes.

5. A rubber composition according to Claim 3 or 4, characterized in that the carbon nanotubes or graphitic nanofibers (GNF) are doped with H, B, N, O, F, Si, P, S,
25 or Cl, or contain at least one from transition metals, transition metal compounds or alkaline metals.

6. A rubber composition according to Claim 1, characterized in that said composition is in the form of composites using surfactants, stearic acid or fatty acids.

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7. A rubber composition according to Claim 6, characterized in that the surfactants are cationic, anionic, nonionic or mixtures thereof.
8. A rubber composition according to Claim 1, characterized in that the carbon
5 nanotubes or graphitic nanofibers are contained in an amount of 0.1 – 150 % by weight on the basis of the amount of rubber.
9. A rubber composition according to Claim 1, characterized in that the carbon
10 nanotubes or graphitic nanofibers are used as a mixture or a compound with carbon black or silicone products.
10. A rubber composition according to Claim 9, characterized in that the carbon
nanotubes or carbon nanofibers are contained in an amount of 0.1 – 99.9 % by weight
on the basis of the amount of carbon black or silicone product, or of a mixture thereof.
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11. Automobile tires using a rubber composition according to Claim 1.